





Firefighting Module

Shown undergoing test is a NASA-developed lightweight, portable firefighting module designed primarily for combating shipboard or dockside fires. At upper left, the unit is being tested on a derelict ship in Mobile Bay, Alabama. At left it is being used by the Miami (Florida) Fire Department aboard a surplus amphibious vehicle capable of reaching a fire location by either land or water routes. Now commercially available, the module—called Firefly—is manufactured by Aviation Power Supply, Inc., Burbank, California.

Beginning this year, Firefly will undergo a multi-year evaluation in demonstration tests and regular operational use at St. Louis, Missouri in a program jointly sponsored by NASA, the Maritime Administration and the U.S. Coast Guard. The aim of the program is to show the feasibility of reducing marine fire protection costs through emergency use of Firefly-equipped commercial tugs operating as auxiliary fireboats.

Originally developed by Marshall Space Flight Center for marine use by the Coast Guard, the module has other applications. It can be mounted

on a light truck (above) for use by local fire departments, or it can be transported by helicopter (above right) to hard-to-reach fire scenes, for example, in forests, on high-rise buildings or on offshore oil rigs. It also has utility in nonfirefighting applications such as flood control or emergency pumping for municipal water supplies.

Completely self-contained in a compact package weighing less than 3,000 pounds, the Firefly can draw water from the sea, a river or other sources and pump up to 2,500 gallons a minute through two water "cannons." The two-stage pump, a derivative of liquid rocket engine pumps, was developed for NASA by Northern Research and Engineering Corporation (NREC), a division of Ingersoll-Rand; NREC also produces the pumps for the commercial version. Power for the pump is generated by an aerospace-type gas turbine built by Detroit Diesel Allison Division of General Motors Corporation. Aviation Power Supply, Inc., has teamed with NREC and Detroit Diesel to develop an advanced Firefly II capable of pumping 3,000 gallons a minute; the new unit is expected to go into production soon.